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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,896	12/08/2003	Masanori Saitoh	245150US3CONT	9652
22850	7590	03/04/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LEE, PETER	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/728,896

Applicant(s)

SAITOH ET AL.

Examiner

Peter Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 201-234 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 226-230, 233 and 234 is/are allowed.
- 6) ☒ Claim(s) 201-208, 211-220, 222, 224, 225 and 231 is/are rejected.
- 7) ☒ Claim(s) 209, 210, 221, 223 and 232 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/12/2004</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on December 8, 2003 has been entered.

Applicant's request to cancel claims 1-200 is noted, and as such only claims 201-234 are being considered.

### ***Claim Objections***

2. Claims 213 and 216 are objected to because of the following informalities:

On p. 8 line 3, after the words "comprises a" replace "developing" with --charging--.

On p. 8 line 10, after the words "comprises a" replace "developing" with --charging--.

It is noted that the examiner has examined the application and claims as with the changes suggested above.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 205, 207, 211, 213, 214, 215 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuno (US 6,088,555).

Mizuno teaches a middle portion of the main image forming device (fig. 1 part 1) (ie. image carrier unit) comprising: a developer cartridge (fig. 1 part 5) (ie. developing device), a cleaning device (col. 4 lines 25-27) and a charging brush (fig. 1 part 22) (ie. charging device) are disposed around a photosensitive body drum (fig. 1 part 2) as components of an image forming device (ie. image forming apparatus); wherein a photosensitive cartridge containing the drum (fig. 7 part 3) (ie. first component) is removable (ie. mounted) from the main device body by being moved upwards a prescribed insertion path along guide groove before the developing cartridge (fig. 7 part 16; note: col. 5 lines 42-46) (ie. moved upward in a preselected direction in a preselected order), the photosensitive cartridge (ie. first one of the components) which is inserted prior to the developer container is then removed in a prescribed order after the developer cartridge (ie. second one of the components) (col. 11 lines 50-53) (ie. unable to be dismounted from the image forming apparatus until another component having priority with respect to the preselected order has been dismounted from the image forming apparatus).

It can also be seen that Mizuno teaches the photosensitive cartridge (ie. first component) is positioned adjacent to the developer cartridge (fig. 1) (ie. second component) and that both cartridges are configured to move along the guide members (fig. 1 parts 16 and 17) (ie. configured to be retracted from the position).

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4. Claim 206, 208, 212, 216, 217, 218 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuno.

Mizuno teaches a middle portion of the main image forming device (fig. 1 part 1) (ie. image carrier unit) comprising: a developer cartridge (fig. 1 part 5) (ie. developing device), a cleaning device (col. 4 lines 25-27) and a charging brush (fig. 1 part 22) (ie. charging device) are disposed around a photosensitive body drum (fig. 1 part 2) as components of an image forming device (ie. image forming apparatus); wherein a photosensitive cartridge containing the drum (fig. 7 part 3) is removable (ie. mounted) from the main device body by being moved upwards a prescribed insertion path along guide groove before the developing cartridge (fig. 7 part 16; note: col. 5 lines 42-46) (ie. moved upward in a preselected direction in a preselected order), the developer cartridge (ie. first one of the components) is taught to not be mountable until the photosensitive cartridge is successfully mounted first (col. 9 lines 35-65) (ie. unable to be mounted to the image forming apparatus until another component having priority with respect to the preselected order has been dismounted from the image forming apparatus).

It can also be seen that Mizuno teaches the photosensitive cartridge (ie. second component) is positioned adjacent to the developer cartridge (fig. 1) (ie. first component) and that both cartridges are configured to move along the guide members (fig. 1 parts 16 and 17) (ie. configured to be retracted from the position).

5. Claim 224 is rejected under 35 U.S.C. 102(b) as being anticipated by Nagase et al.

Nagase teaches developing units (fig. 5 parts 13M, 13C, 13Y, 13K) that can be formed

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integrally with a cartridge C that includes a photoreceptor drum (col. 13 lines 16-21) (ie. developing device is configured in a unit comprising the image carrier). When the cartridge C is removed, it is taught that all other components are retracted away from the drum surface to allow removal of the cartridge C first (col. 13 lines 10-15) (ie. dismounted before cleaning device and charging device). The developing units can be seen to have toner bodies to store toner, and developing sleeves (fig. 2 part 130) (ie. roller to deliver toner to image carrier).

6. Claims 219, 225 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagase et al. (US 5,752,133).

Nagase teaches an image forming apparatus comprising: a main body (fig. 11 part 1), an image forming body (fig. 11 part 10) (ie. image carrier; drum configured to have an image formed thereon), the image forming body having a shaft (fig. 11 part 21) (ie. a bearing) on which to rotate, and a developing units (fig. 11 parts 13M, 13Y, 13C, 13K), wherein the developing units along with charging units (fig. 12 parts 11M, 11Y, 11C, 11K) are retracted to allow the unit 92 that contains the image forming body to be removed from the main body (col. 16 lines 16-24) (ie. developing device dismounted after the image carrier is removed from main body) and leaving the cleaning unit (fig. 12 part 19) behind as seen in fig. 12; Nagase also teaches having a protective cover to integrally accommodate the photoreceptor drum (fig. 7 part 330; note: col. 12 lines 13-20) (ie. image carrier is associated with a member comprising a plurality of holders).

7. Claim 231 is rejected under 35 U.S.C. 102(b) as being anticipated by Nagase et al.

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Nagase teaches a cleaning unit (fig. 13 part 19) configured to be mounted and dismounted from a unit (fig. 13 part 93) (ie. image carrier unit) comprising: a blade (fig. 13) and a member configured to direct toner removed by the blade (fig. 13), and wherein the cleaning unit is configured to be dismounted from the unit before a charging unit (fig. 13 parts 11; in the figure it can be seen that the cleaning unit is clearly dismounted while the charging units are still within the apparatus).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 201- 204, 220, 222 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno (US 6,088,555) in view of Haneda et al. (US 5,758,243).

Mizuno teaches a middle portion of the main image forming device (fig. 1 part 1) (ie. image carrier unit) comprising: a photosensitive drum (fig. 1 part 2) (ie. image carrier) around which a developer cartridge (fig. 1 part 5) (ie. developing device/second component), a cleaning device (col. 4 lines 25-27) and a charging brush (fig. 1 part 22) (ie. charging device) are arranged as components of an image forming device (ie. image forming apparatus); and there is provided a stepping motor (fig. 1 part 19) constituting a main drive source (ie. inputting power for driving the image carrier), wherein a photosensitive cartridge containing the drum (fig. 7 part 3) (ie. first component) is removable (ie. mounted) from the main device body by being moved upwards a

prescribed insertion path along guide groove before the developing cartridge (fig. 7 part 16; note: col. 5 lines 42-46) (ie. moved upward in a preselected direction in a preselected order), the photosensitive cartridge which is inserted prior to the developer container is then removed in a prescribed order after the developer cartridge (col. 11 lines 50-53) (ie. any one of the components is unable to be mounted/dismounted from the image forming apparatus until another component having priority with respect to the preselected order has been dismounted from the image forming apparatus).

It can also be seen that Mizuno teaches the photosensitive cartridge (ie. first component) is positioned adjacent to the developer cartridge (fig. 1) (ie. second component) and that both cartridges are configured to move along the guide members (fig. 1 parts 16 and 17) (ie. configured to be retracted from the position).

Mizuno teaches the developer cartridge (ie. developing device configured to be mounted to and dismounted from an image carrier unit) comprising: a toner tank (fig. 1 part 26) (ie. body configured to store a toner), and a developing roll (fig. 1 part 24) (ie. roller configured to deliver the toner); the cleaning device is also not said to be dismountable and the charging brush is contained within the photosensitive cartridge that is dismounted after the developer cartridge 9ie. developing device is dismounted before a cleaning device and charging device).

Mizuno does not teach having a holder protruding from a surface portion of the photosensitive drum. Mizuno teaches the presence of a cleaning device, however does not teach the cleaning device being an unremovable component that is retractable.

It is Haneda who teaches having a gap retention member (fig. 3 parts 106 and 107; note:



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col. 5 lines 45-60) on both end portions of a photoreceptor drum (fig. 3 part 10). These gap retention members are seen to protrude in such a way as to prevent the photoreceptor drum from touching any surface in the case that it is taken out from the image forming apparatus.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the photosensitive drum taught by Mizuno to include the gap retention members as taught by Haneda on both end portions of the drum. One of ordinary skill in the art would have been motivated to modify the photosensitive drum to have the gap retention members because they ensure that a precise distance is maintained between the photoreceptor drum and the developing means which will prevent the drum from contact damage and result in favorable image formation (col. 8 lines 47-54).

It is Higaya who teaches a cleaning blade system and apparatus (fig. 3 part 5) (ie. component unremovable) that is retractable away from a photoconductor drum at times of replacement (col. 1 lines 55-61) (ie. is retractable from the position) located at an upper portion of the drum (ie. arranged at a position above the components).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cleaning device disclosed in Mizuno to be the retractable cleaning apparatus taught in Higaya. One of ordinary skill in the art would have been motivated to do so because the retractable cleaning apparatus allows convenience when removing parts such as the photosensitive drum and prevents undue pressure contact onto the drum that may cause damage (col. 1 lines 55-60).

*Allowable Subject Matter*

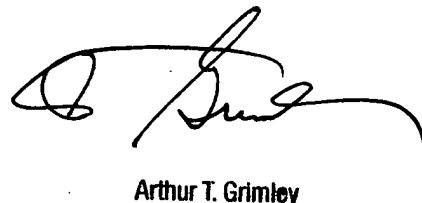
10. Claims 226-230, and 233-234 are allowed.
11. Claims 209-210, 221, 223, 232 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Lee whose telephone number is 571-272-2846. The examiner can normally be reached on mon-fri 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PL 02/25/2005



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